Chapter 24

A CAPE COD COTTAGE

As you can see from the plans, this cottage is very similar to the basic house in appearance as well as construction.

While it is somewhat smaller than the basic house and does not have a second floor that can be used for living purposes, the first floor has been planned to provide ample space for a small family.

Eliminating the attic room and the dormer windows decreases the cost of this house considerably in comparison with the basic house.

Examine the first-floor plan of the Cape Cod Cottage and you will see that all the really important features of the basic house are there. There are two good-size bedrooms and a spacious living room with a fireplace for luxurious living. Ample space has been given to the kitchen, and the bath, while compact, is most adequate. There is plenty of closet space in each bedroom, and there is also a storage closet in the kitchen. The utility room off the kitchen contains the heating equipment and the hot-water heater.

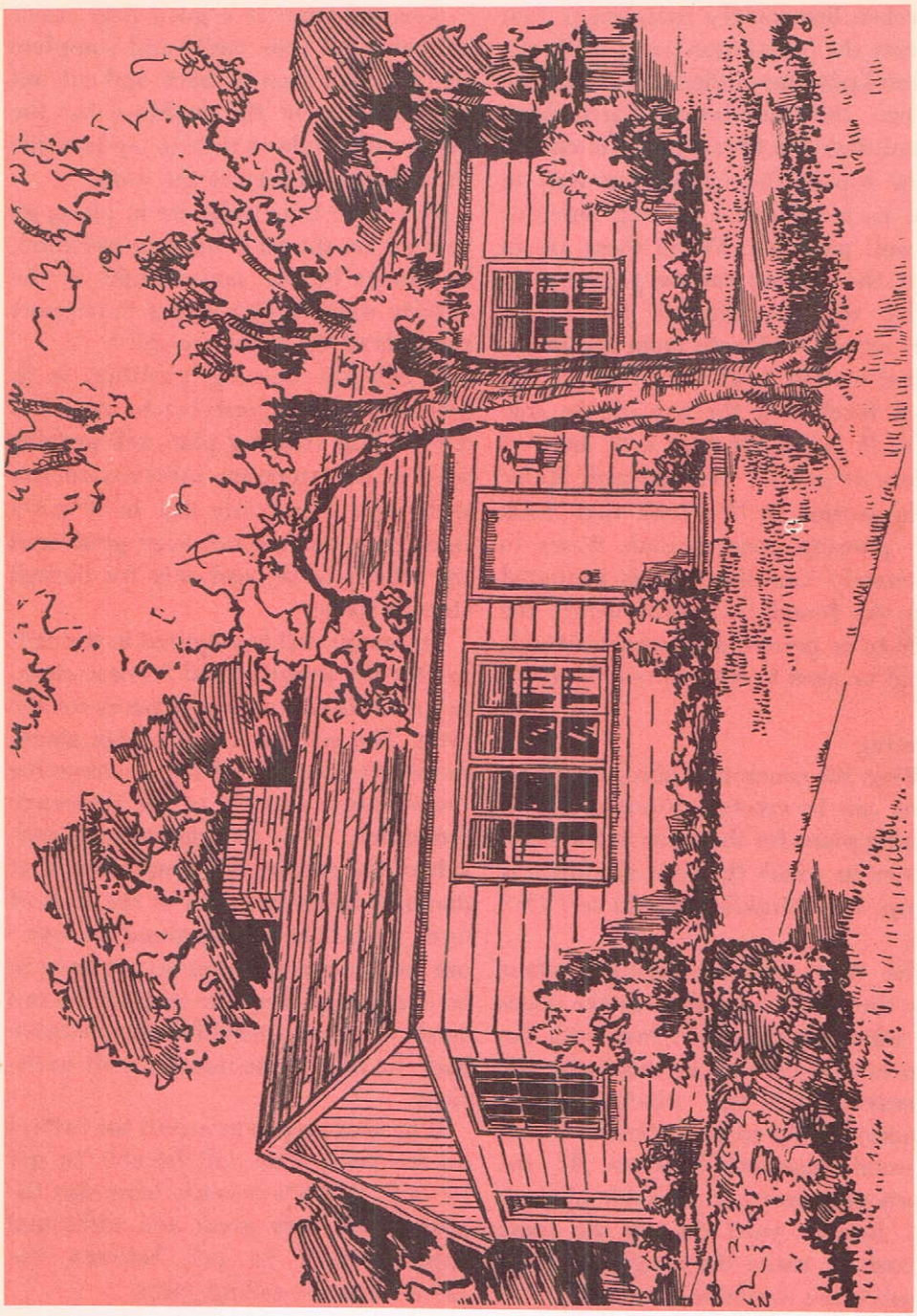
Although the attic space is not practical for use as living quarters, it can be used very handily for storage purposes. The access to the attic is through an opening in the first-floor ceiling. This opening is fitted with a trap door.

The Cape Cod Cottage is an excellent house for a small family. It is by no means merely a summer home but has been planned for all-year-round living.

Foundations and Floor Slab

The first floor of the house is poured concrete, which is covered with asphalt tile after all the rest of the house has been completed. If the floor is properly constructed according to the directions given in the chapter on pouring slab floors, it will be dry and comfortable both winter and summer.

Information required for building the house foundations is given in the foundation plan. The foundation walls can be either poured concrete or masonry blocks. They are set on a footing that extends below the frost line. Running through the approximate center of the house is a footing for the main bearing partition and for the fireplace base. This footing does not have to extend more than 12″ in depth as it will not be subject to frost. Heavy



The Cape Cod Cottage

unbroken lines on the foundation plan indicate the foundation itself, while the broken light lines indicate the footings.

Once the foundations have been poured, two 2″ x 4″s should be anchored to the top of the foundation wall to serve as a sill and a nailing base for the wall partition. When these are in place, the ground can be prepared to receive the concrete-slab floor. The floor, as you will note from the longitudinal section, is 4″ thick and the top comes level with the top of the sole plate. It is poured over a 6″ base of cinders or gravel, well tamped. Refer to the section in this book that deals with pouring concrete-slab floors to see exactly how the floor is insulated from the foundation walls before the concrete is poured and what methods should be used to waterproof the floor.

Framing

When the concrete is hard, the house frame can be erected. Study the four framing plans for the walls to learn the manner in which the wall studding is put up. Wall studding should be 7′1½″ high.

The four framing-elevation plans show the rough openings for the doors and windows. As is the case with the other houses covered in this book, the dimensions for the window rough openings apply to a particular brand of wood casement window. If the brands of casements available at your local lumber yard do not fit these dimensions, make the rough openings to match the available casements.

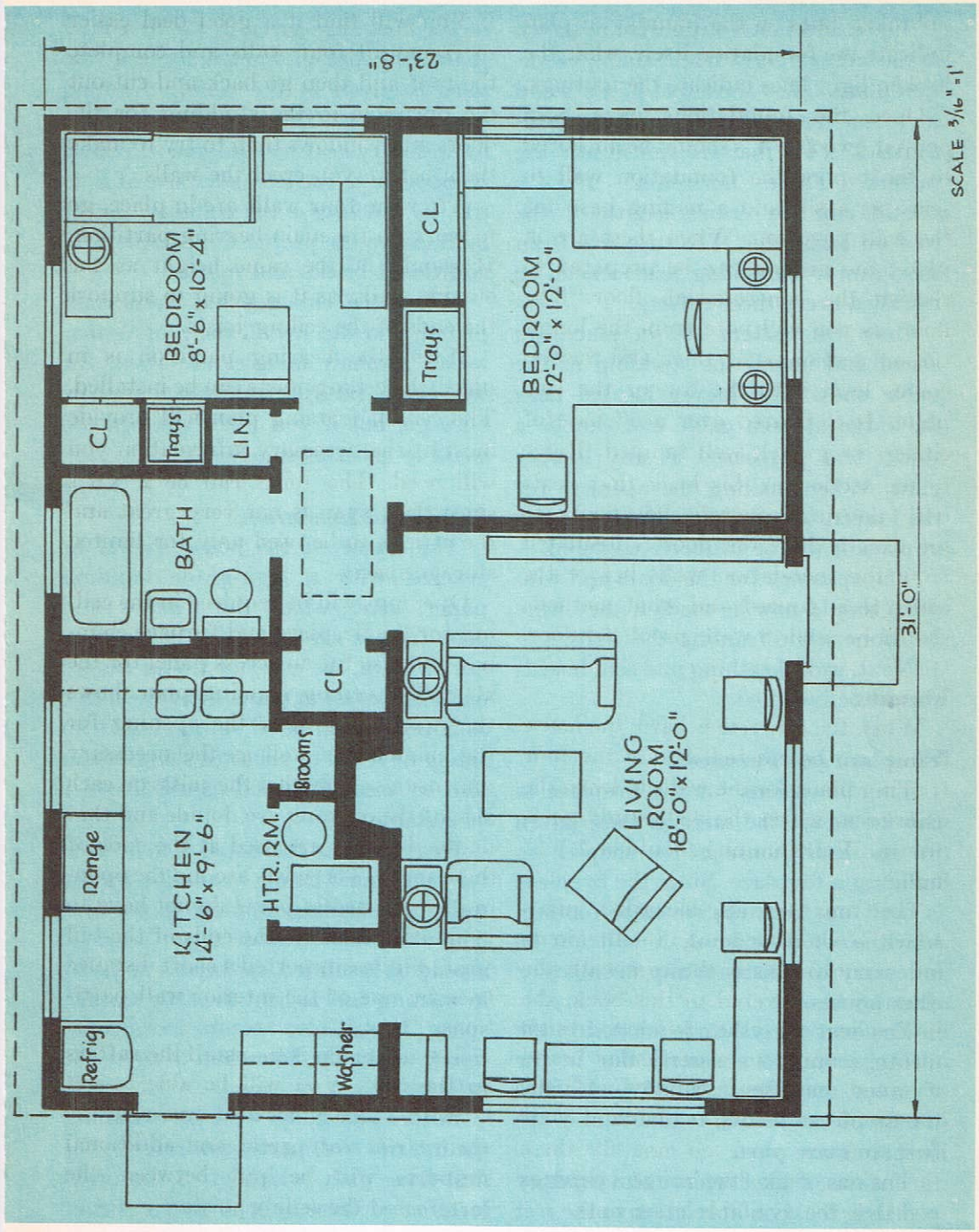
You will find it a good deal easier to frame all four walls and complete the roof and then go back and cut out the openings in the studding for the doors and windows than to try to make them before you erect the walls.

After the four walls are in place, go to work on the main bearing partition. It should be the same height as the outside walls, as it is going to support the ends of the ceiling joists.

When the bearing partition is in place, the ceiling joists can be installed. The ceiling framing plan will provide most of the necessary information you will need. The joists can be 2″ x 6″s since their span is not very great and the attic is to be used only for limited storage space.

Openings will be required in the ceiling for the fireplace and furnace chimney and also for an access panel for the attic. The ceiling framing plan shows the exact location of the opening for the chimney as well as the necessary dimensions. Note that the joists on each side of the opening are double and that double headers are used at the ends of these joists. The joists around the opening for the access panel do not have to be doubled because the ends of the tail joists will be supported a short distance back by one of the interior wall partitions.

The next step is to install the rafters on the roof. You will be able to get by with 2″ x 6″s because here also the span is not very great and additional supports will be put between the rafters and the ceiling joists.



General Floor Plan of the Cape Cod Cottage

These additional supports are shown in the left and right side framing-elevation plans. They consist of 2″ x 4″s and they run diagonally down from horizontal 2″ x 4″s that are spiked into the rafters. These horizontal 2″ x 4″s should run the entire length of the roof on both sides. The supports from this beam to the ceiling joists should be installed every three rafters.

Once the rafters are in place, go ahead and install the studding at the gable ends. The louver located near the ridge at each gable end can be a stock item purchased at any lumber yard. When making the opening for the louver, be sure that when it is put in place it will be properly centered.

The openings for the doors and windows should now be made if they were not done while framing the walls.

Next, wall sheathing and roof boards should be installed.

Fireplace and Furnace

The dimensions for the fireplace in this house are the same as those given for the basic house in the chapter on building a fireplace. Since the fireplace is built up from the concrete footing, which is at floor level, it will not be necessary to construct any fireplace or chimney base.

The heating system is located in the utility room, so a second flue in the chimney must be installed just above the fireplace opening to take care of the furnace stove pipe.

The size of the fireplace and chimney and their location in relation to the rest of the house are given in the first-floor plan. The size of fluetile for the furnace is given in the ceiling framing plan as 8″ x 1″. This should be sufficient for ordinary heating equipment. It may be possible to use a smaller size of fluetile, in which case the chimney can be built out to the proper dimensions with additional bricks and mortar.

When the chimney has been completed, you can install the roofing material. Asphalt shingles are about the best bet as far as economy and appearance go, but if you wish, you can use wood or asbestos shingles.

Siding and Insulation

The frame of the house should be covered with a high-grade building paper, after which the window and door frames are installed. When they are in place, the exterior siding can go on. The elevation plans show the house as covered with bevel siding, but drop siding or wood or asbestos shingles can also be used. Plywood would likewise be suitable.

In as much as this house is to be used for year-round living, insulation for the walls and ceilings is most important. The attic floor, rather than the roof, should be insulated, as there is no point in wasting fuel to heat the attic storage space. It will also require less insulation to cover the floor than to cover the rafters.

Before you go to work on installing the interior wall partitions, refer to the first-floor plan, which gives the exact location of these as well as the size of

the necessary openings for doors and closets. Note that the studding for one wall of the bathroom is made out of 2″ x 6″s in order to allow a 4″ cast-iron soil pipe to pass up through it.

Utilities

Once the bathroom walls have been completed, the plumbing system should be installed. This system can be of the same type as described for the basic house.

The electrical wiring should also go in at this time. You will need three 15-ampere branch circuits and two 20-ampere appliance circuits for the kitchen and the portion of the living room that is to serve as a dining area. You may require individual circuits also for the kitchen range, hot-water heater and laundry equipment.

Plaster or a good grade of wallboard should be used for the interior walls and ceilings.

The flooring can be wood set away from the concrete base by means of wood sleepers, or you can apply asphalt tile directly to the masonry.

CAPE COD COTTAGE MATERIALS LIST

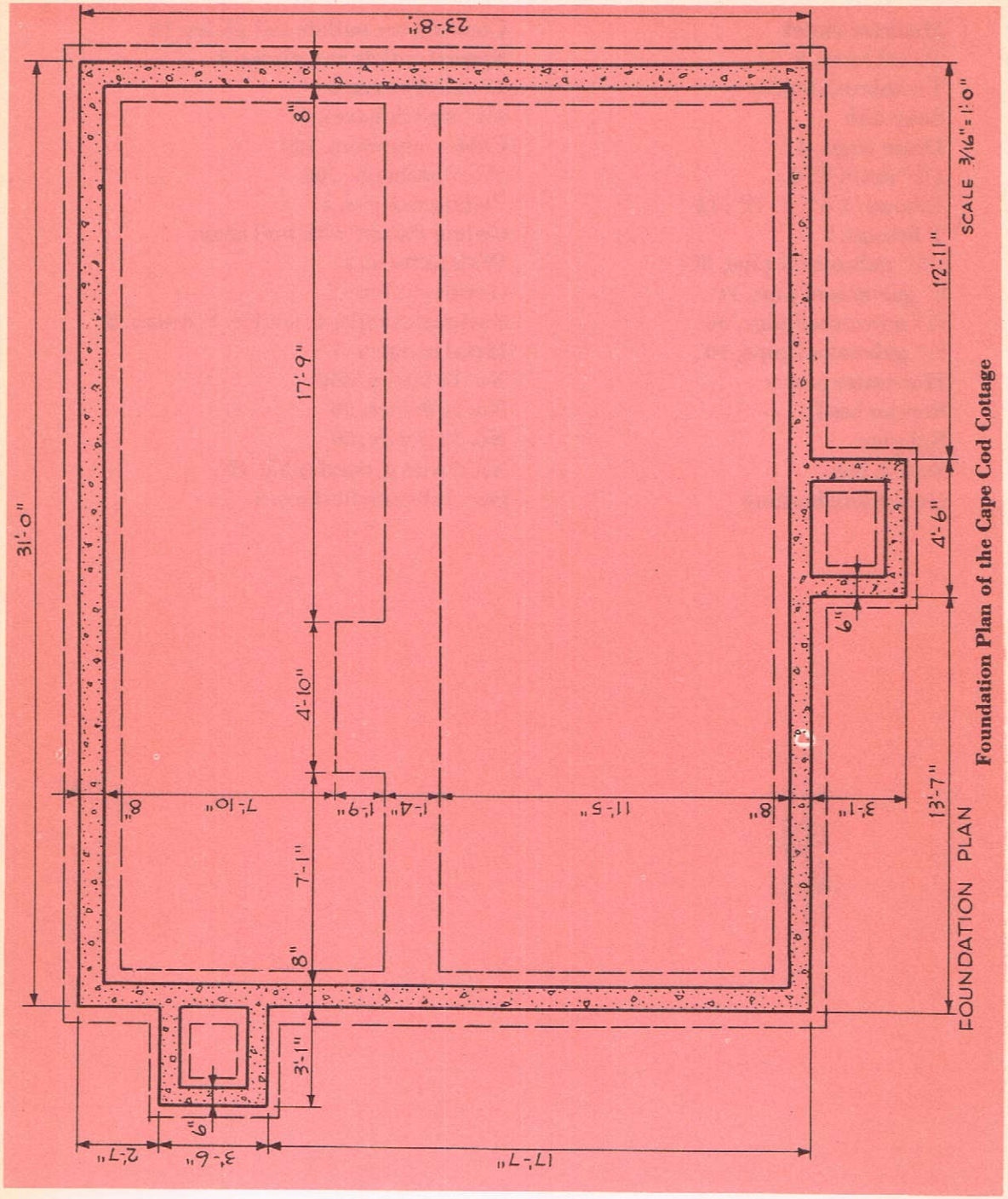
Material	*Quantity*	*Dimensions*
Mixed Cement	19 cu. yards	
2″ x 6″	55	16′
	25	14′
	25	12′
2″ x 4″	200	16′
1″ x 6″	32′	
1″ x 4″	150′	
1″ x 2″	7	16′
Fibreboard sheathing	950 sq. ft.	
Beveled siding	1,140′	1″ x 6″
Roof Sheathing	988′	1″ x 6″
Roofing material	832 sq. ft.	
Building paper	950 sq. ft.	
Insulation	1,568 sq. ft.	
Wallboard	1,572 sq. ft.	
Baseboard	110′	1″ x 3″
Shelving	100′	1″ x 6″
Entrance door with frame and trim	1	3′ 0″ x 6′8″
	1	2′ 10″ x 6′8″
Interior doors with trim, jambs and stops	4	2′ 6″ x 6′8″

Material	*Quantity*	*Dimensions*
Interior doors with trim, jambs and stops	2	1′ 10″ x 6′8″
	3	1′ 8″ x 6′8″
	2	2′ 0″ x 6′8″
	2	1′ 5″ x 6′8″
	1	1′ 6″ x 6′8″
	2	10″ x 6′8″
	2	12″ x 6′8″
Casement picture window with sash and frame	2	4′2⅜″ x 6′5¼″
Casement window with sash and trim	4	4′2⅜″ x 3′1¾″
	3	3′2 3/16″ x 3′1¾″
Clay flue-tile	4 sections	12″ x 12″ x 2′
	4 sections	12″ x 8″ x 2′
Copper flashing	2 pieces	12″ x 12″
	1 piece	4′ x 4′

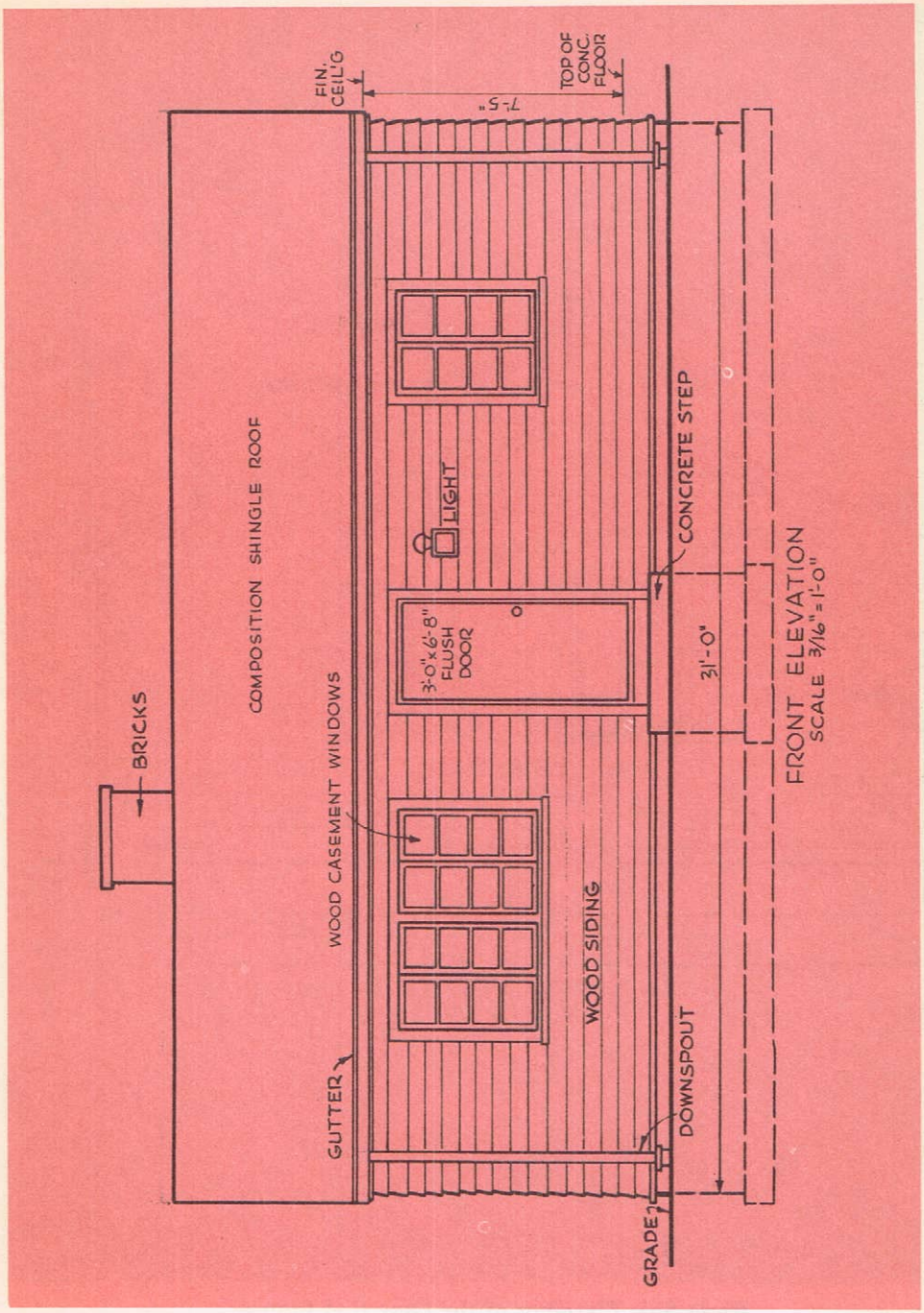
Louvers, 2
Gutters, 64′
Nails: 6*d*, 24 lbs; 8*d*, 30 lbs; 16*d*, 18 lbs; finish, 20 lbs; 4*d*, 48 lbs; 5*d*, 9 lbs
Hinges: 6 brass; 36 interior
Mortice locks, 9
Latches, 9
Common bricks, 2,000
Firebricks, 100
Fireclay, 30 lbs.
Clean-out doors, 2
Chimney thimble
Cement mortar, 1 cu. yd.
Damper
Angleirons: 1, 42″; 1, 36″
Ash-dump
Hearth assembly
Mixed cement, 2 cu. ft.
Paint: exterior, 24 gal.; water-thinned, 11 gal.; enamel, 1½ gal.; floor, 3 gal.
Steel boiler (96,000 BTU) with jacket with 200-gal. per hour coil
Fill box
Vent cap
Ventalarm
12 x 30 compression tank
Airtrol tank fitting
Autovent with overflow
1¼″ angle flow control
No. 8 dual valve
⅜″ stop and waste valve
Circulator
⅜″ type L copper tubings, 1,000
4″ x 4″ sanitary T branch
4″ x 4″ Y branch
4″ clean-out plug
4″ x 4″ sanitary T branch with 2″ tapping
5′ sections 4″ cast-iron soil pipe, 8
Increaser
4″ closet bend
Kitchen sink
Bathtub with shower and fittings
Lavatory with fittings
Water closet with flush tank and fittings

Medicine closet
Towel racks, 2
Toothbrush holder
Soap dish
Drain traps, 4
1½″ drain T, 6
Elbows: 1½″, 5; ½″, 14
T fittings, 7
1½″ galvanized pipe, 30′
2″ galvanized pipe, 11′
½″ galvanized pipe, 50′
¾″ galvanized pipe, 10′
Hot-water heater
Service head
Sill plate
Switch box
Grounding bushing

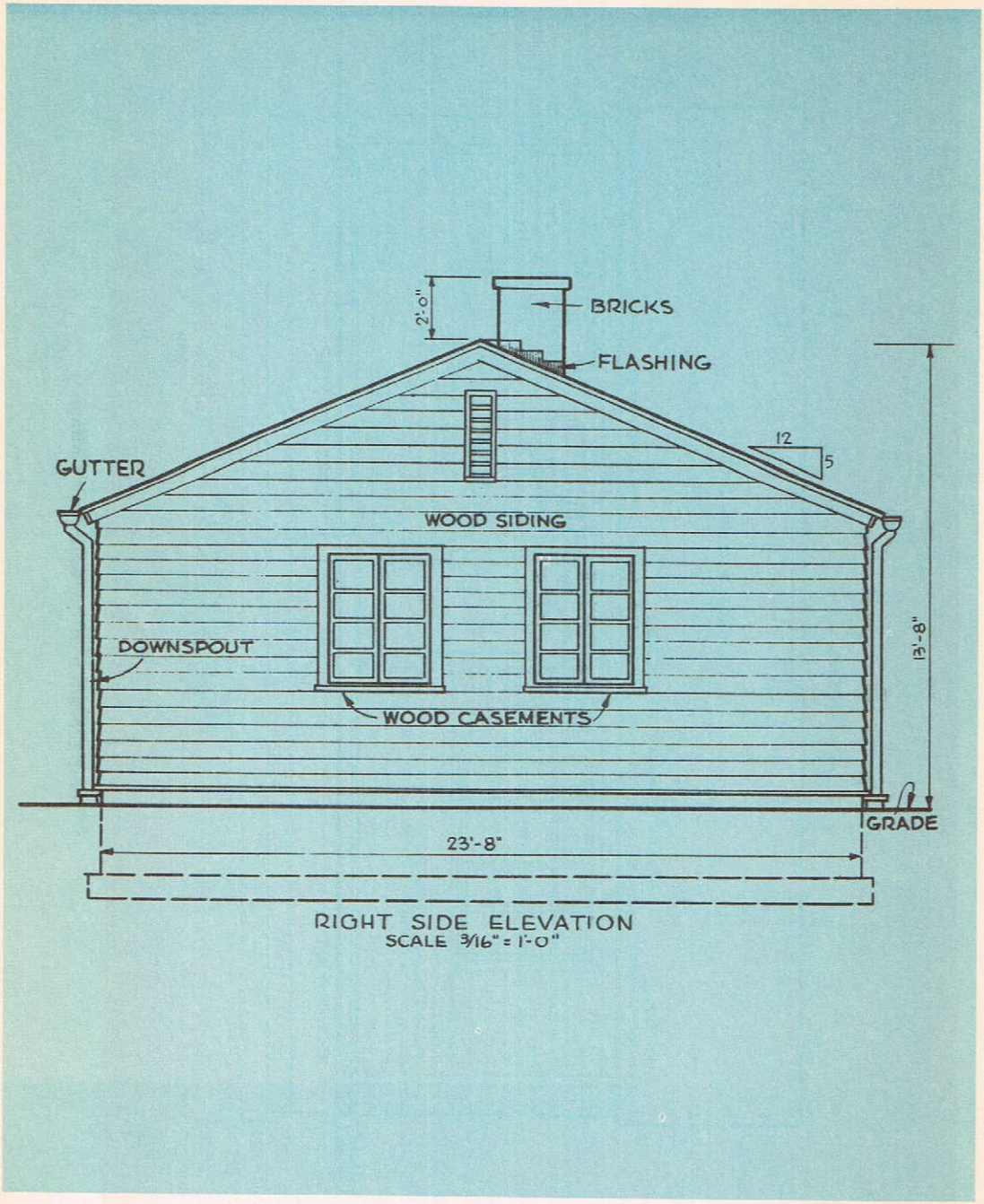
Convenience outlets and plates, 12
Special outlets and plates, 3
4″ outlet boxes, 5
2½″ switch boxes, 27
Cable connectors, 100
Fiber bushings, 100
Ceiling fixtures, 4
Ceiling fixture with pull chain
Wall fixtures, 2
Outside fixture
Switches: single, 4; double, 1; 3-way, 2
Metal hangers, 5
No. 14 2-wire, 350′
No. 14 3-wire, 50′
No. 12 2-wire, 50′
No. 6 wire ground cable, 10′
Doorbells and buttons, 2



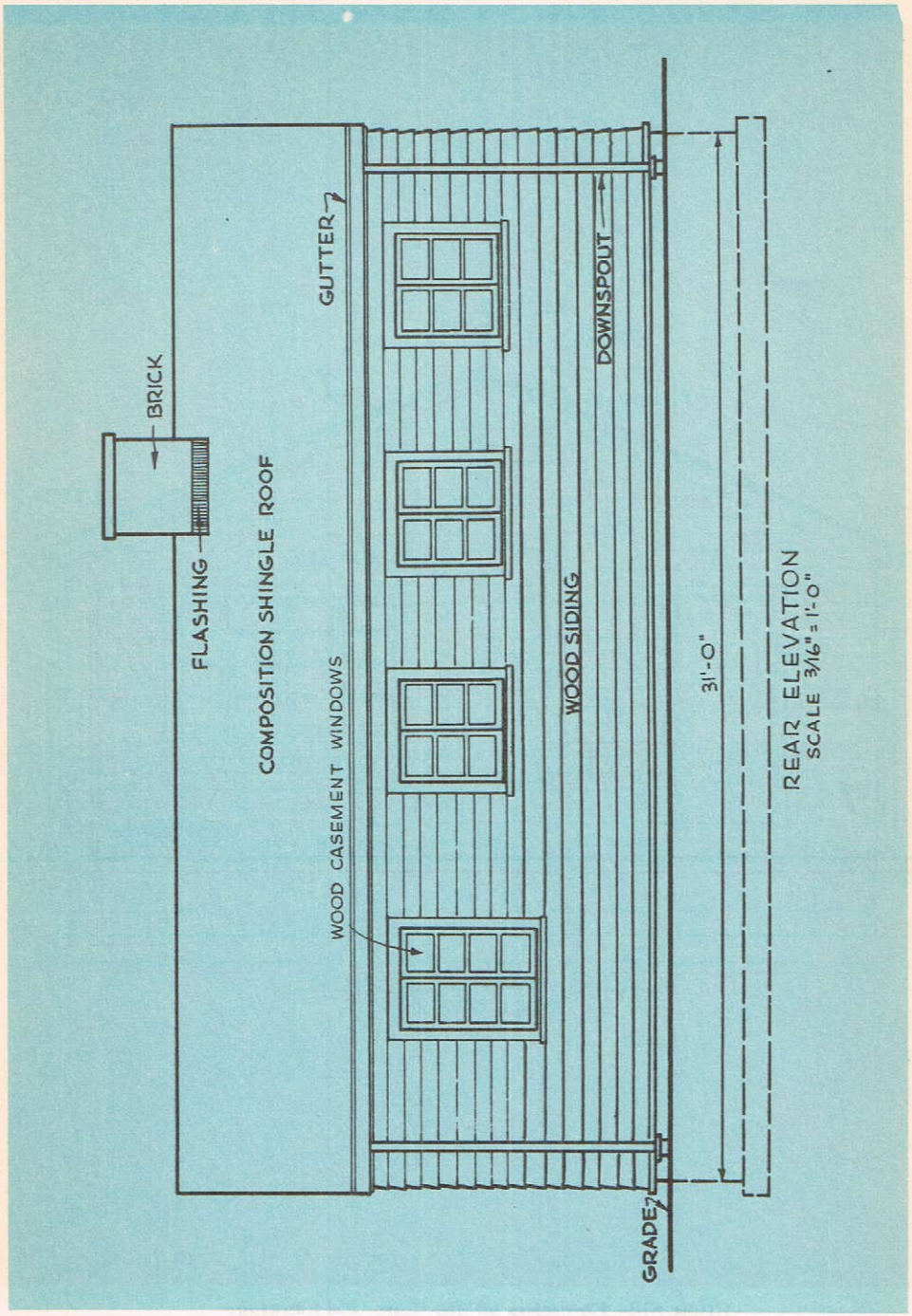
Foundation Plan of the Cape Cod Cottage



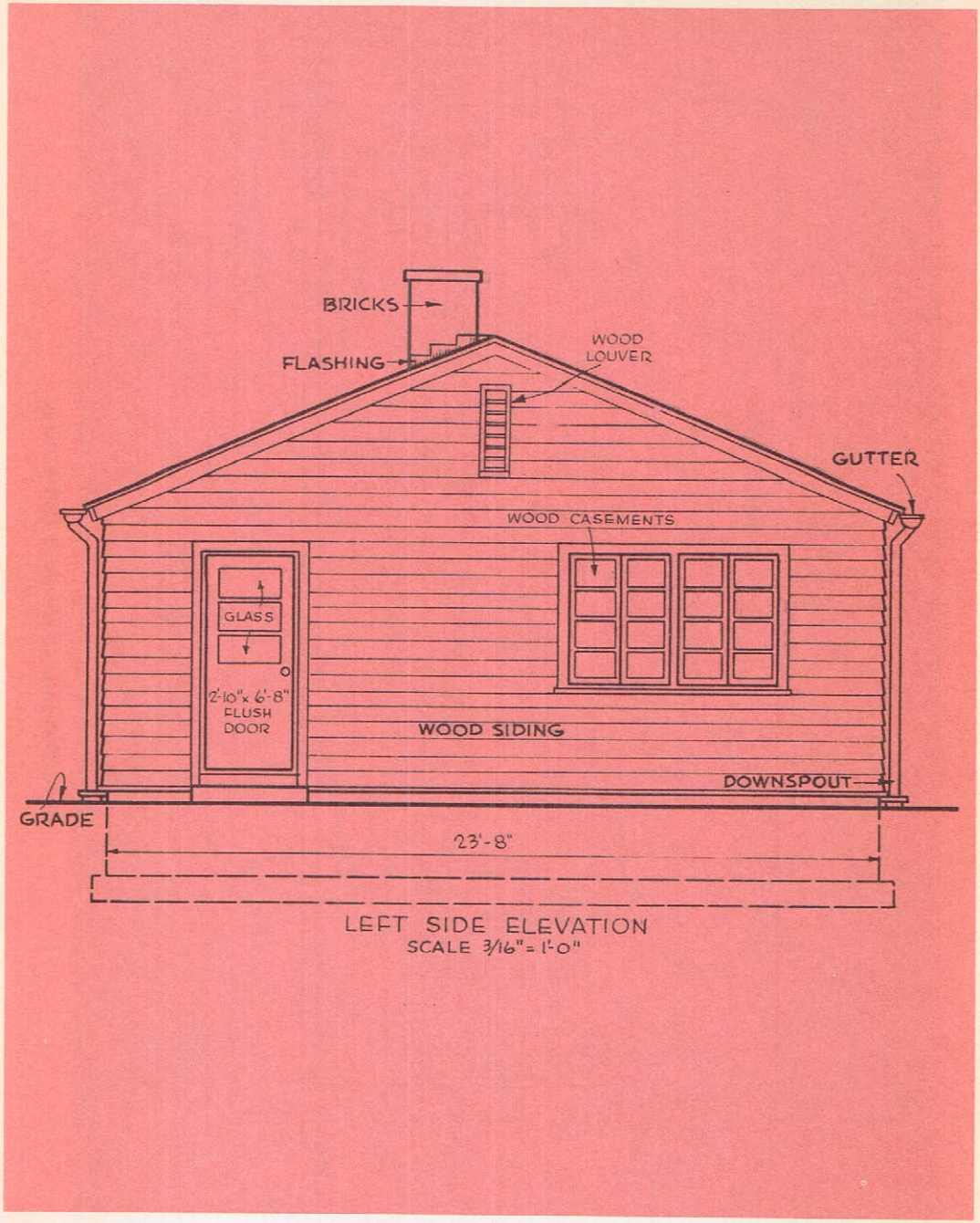
Front Elevation of the Cape Cod Cottage



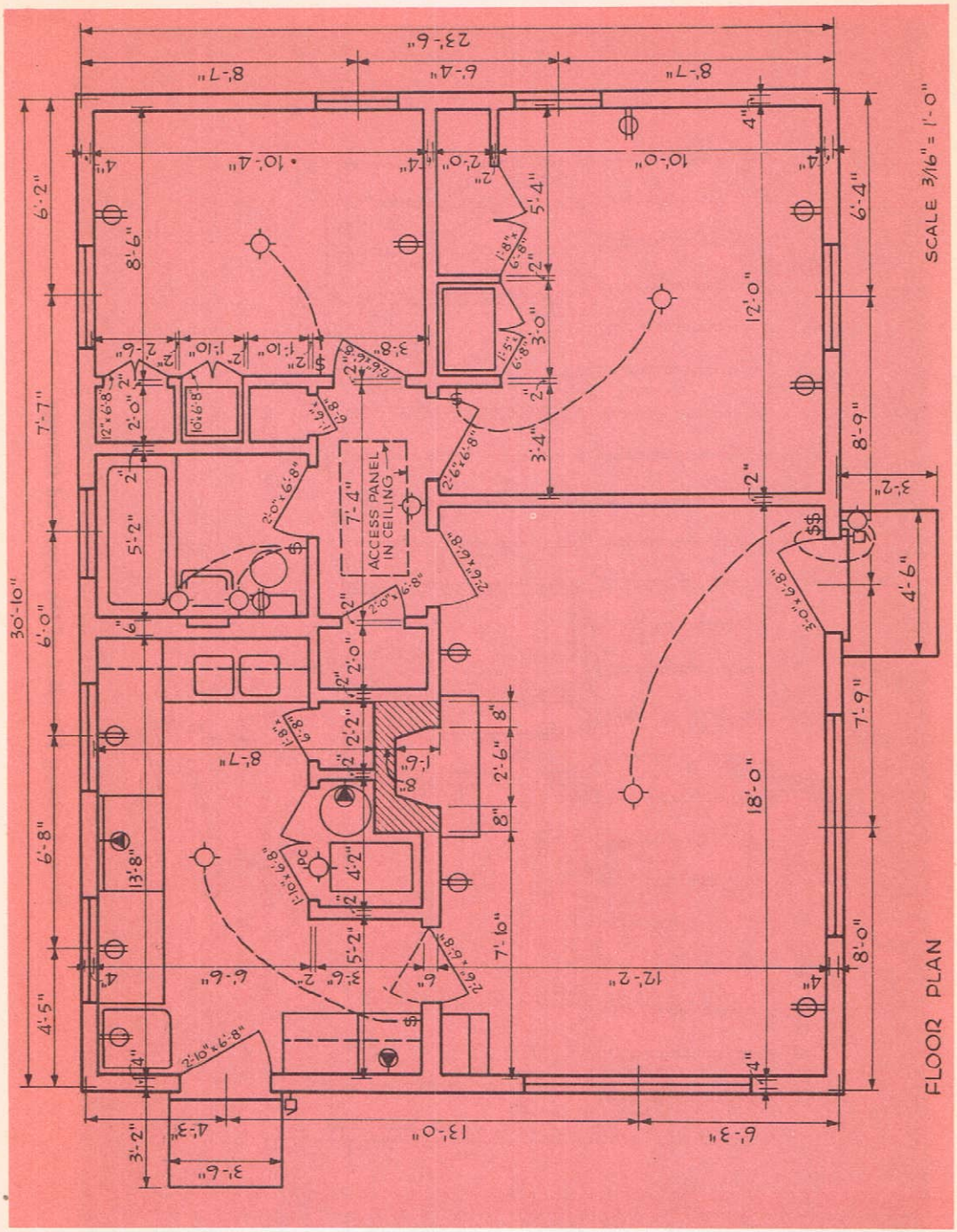
Right Side Elevation of the Cape Cod Cottage



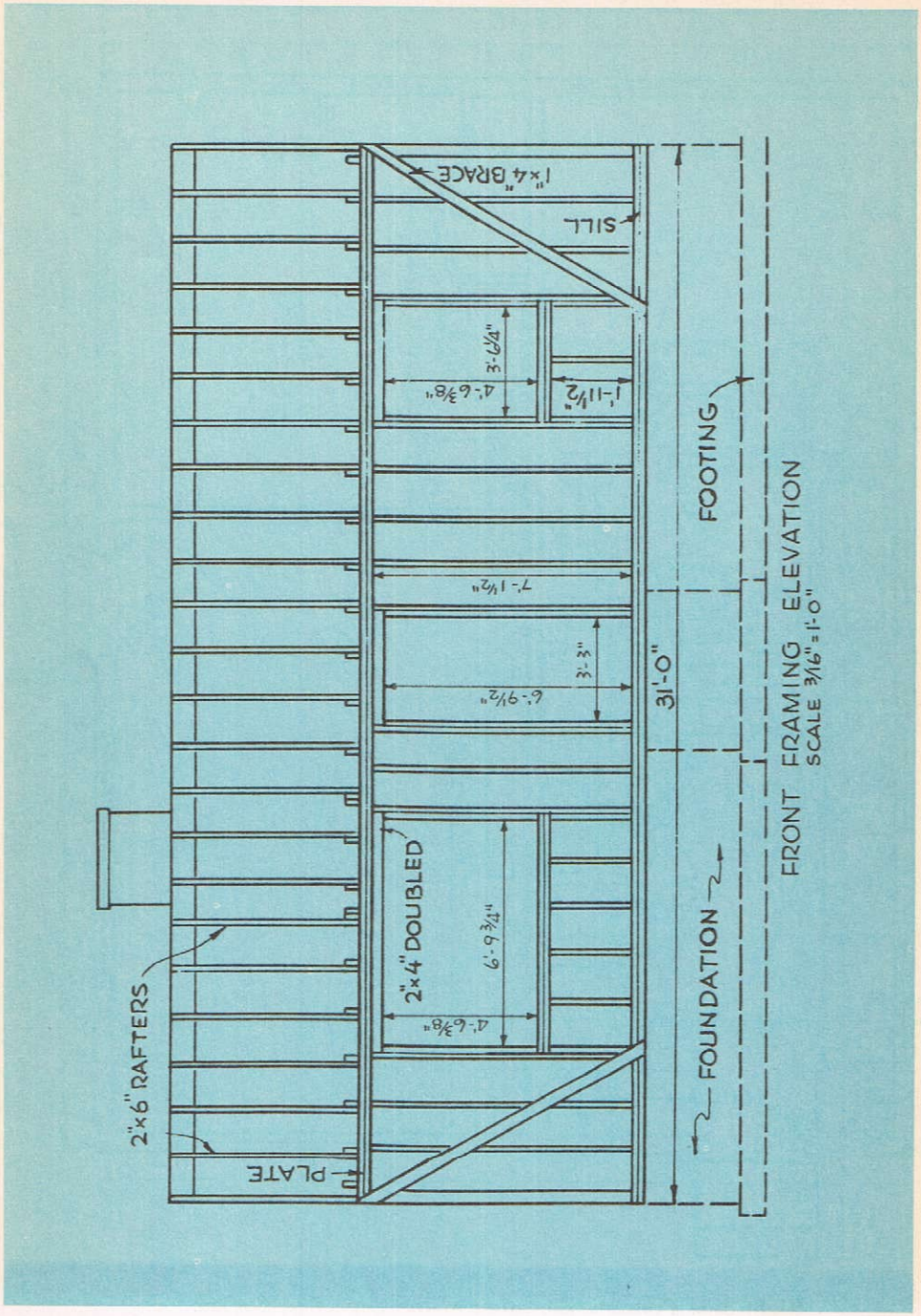
Rear Elevation of the Cape Cod Cottage



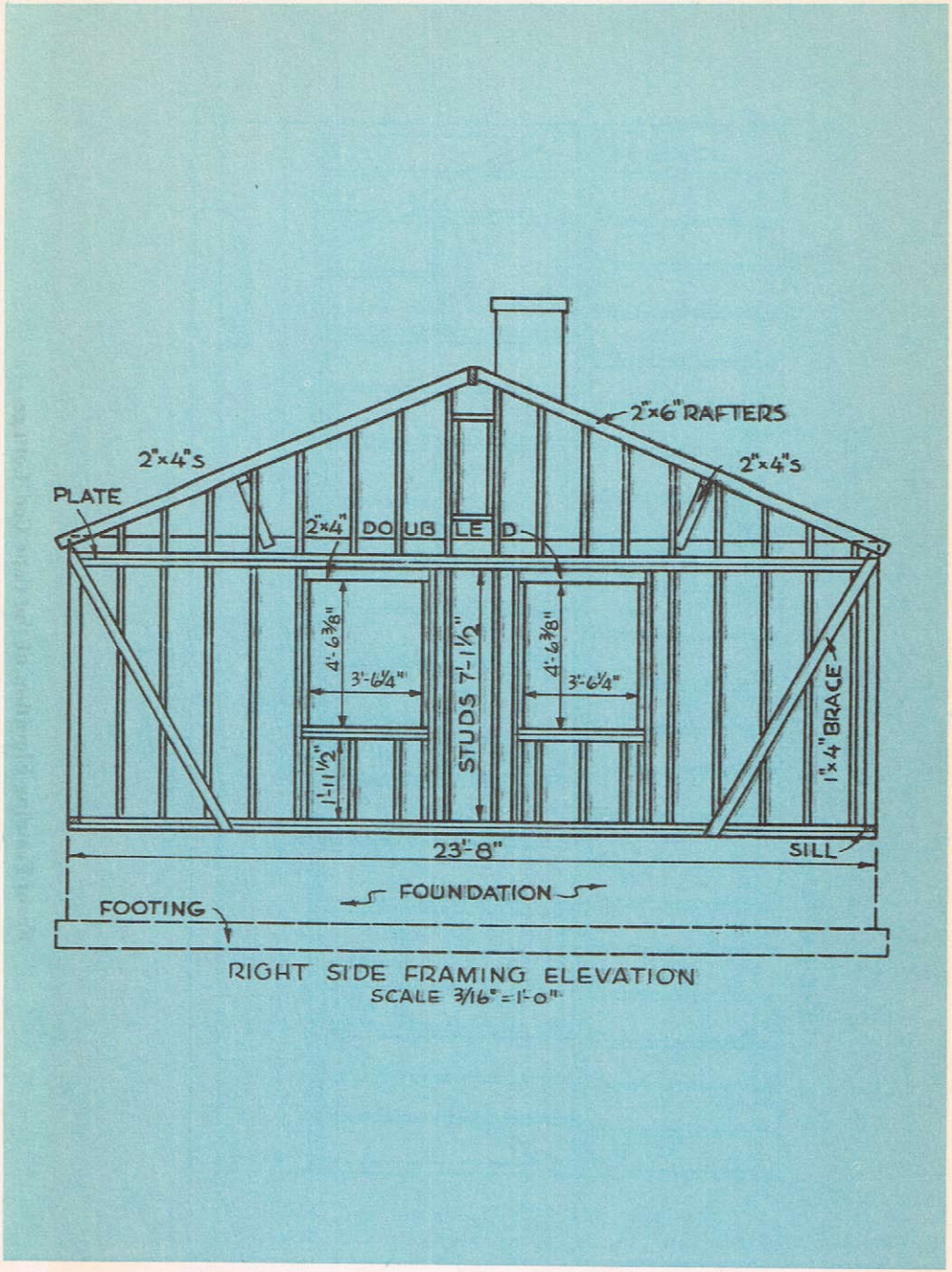
Left Side Elevation of the Cape Cod Cottage



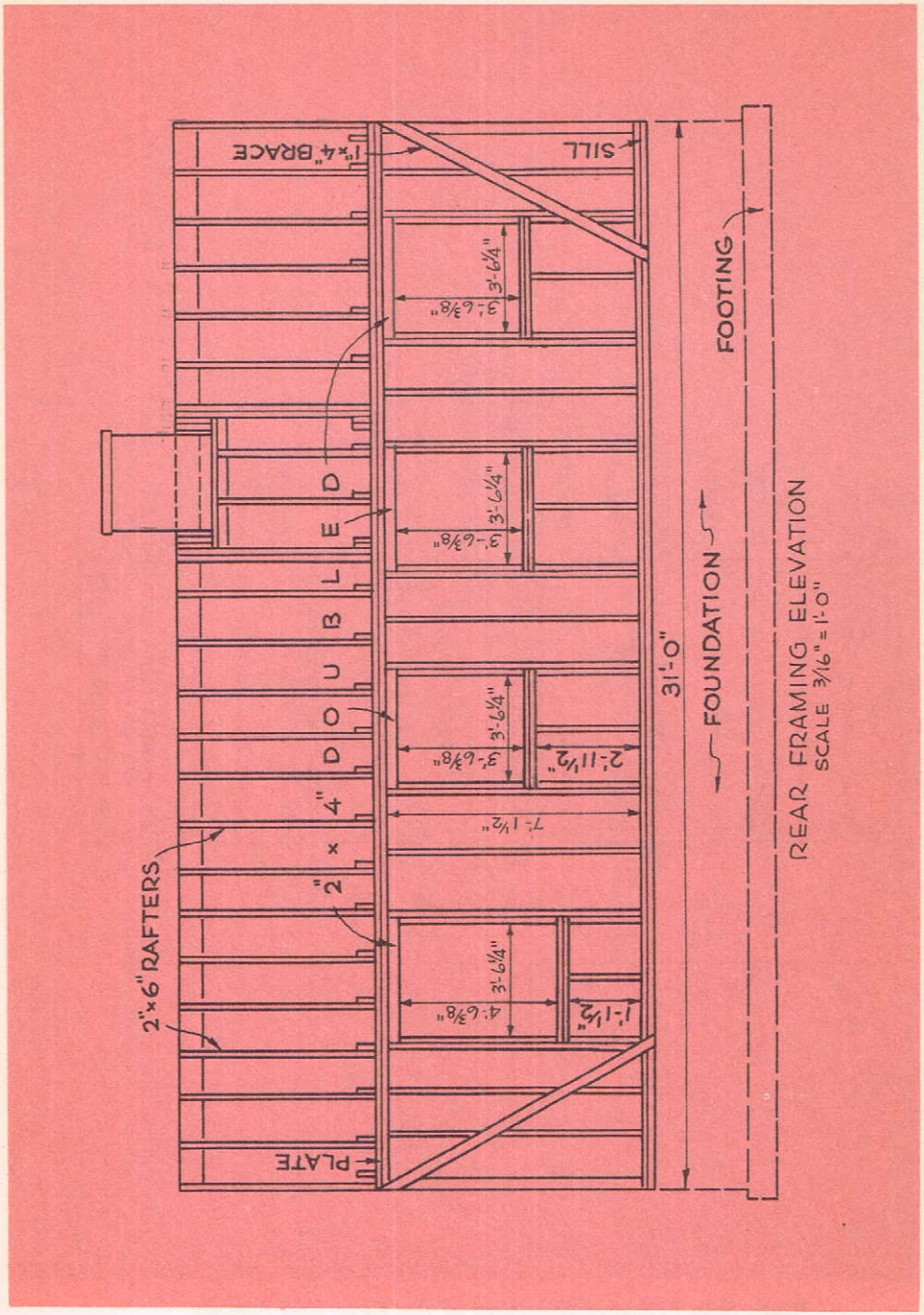
Floor Plan of the Cape Cod Cottage



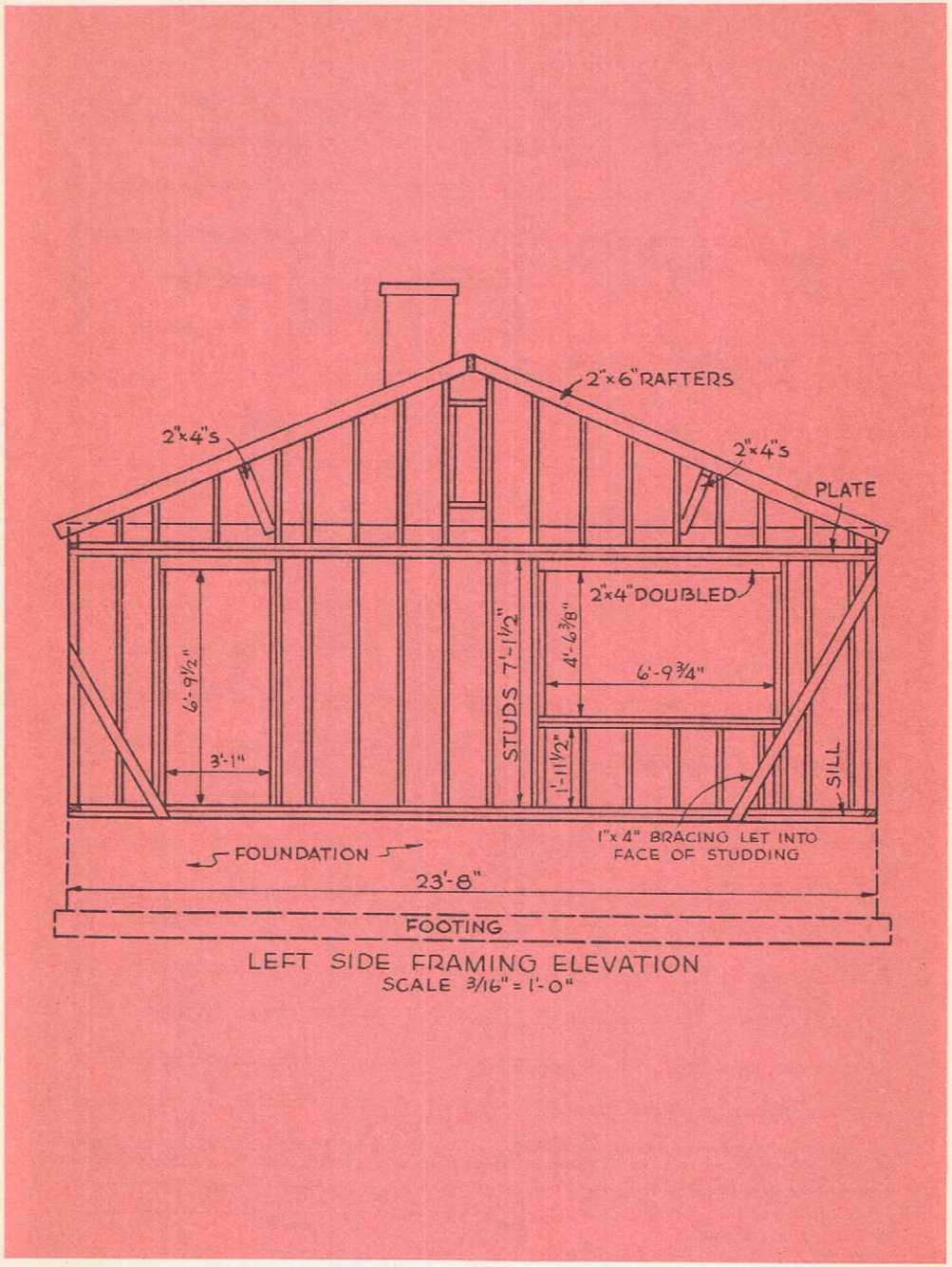
Front Framing Elevation of the Cape Cod Cottage



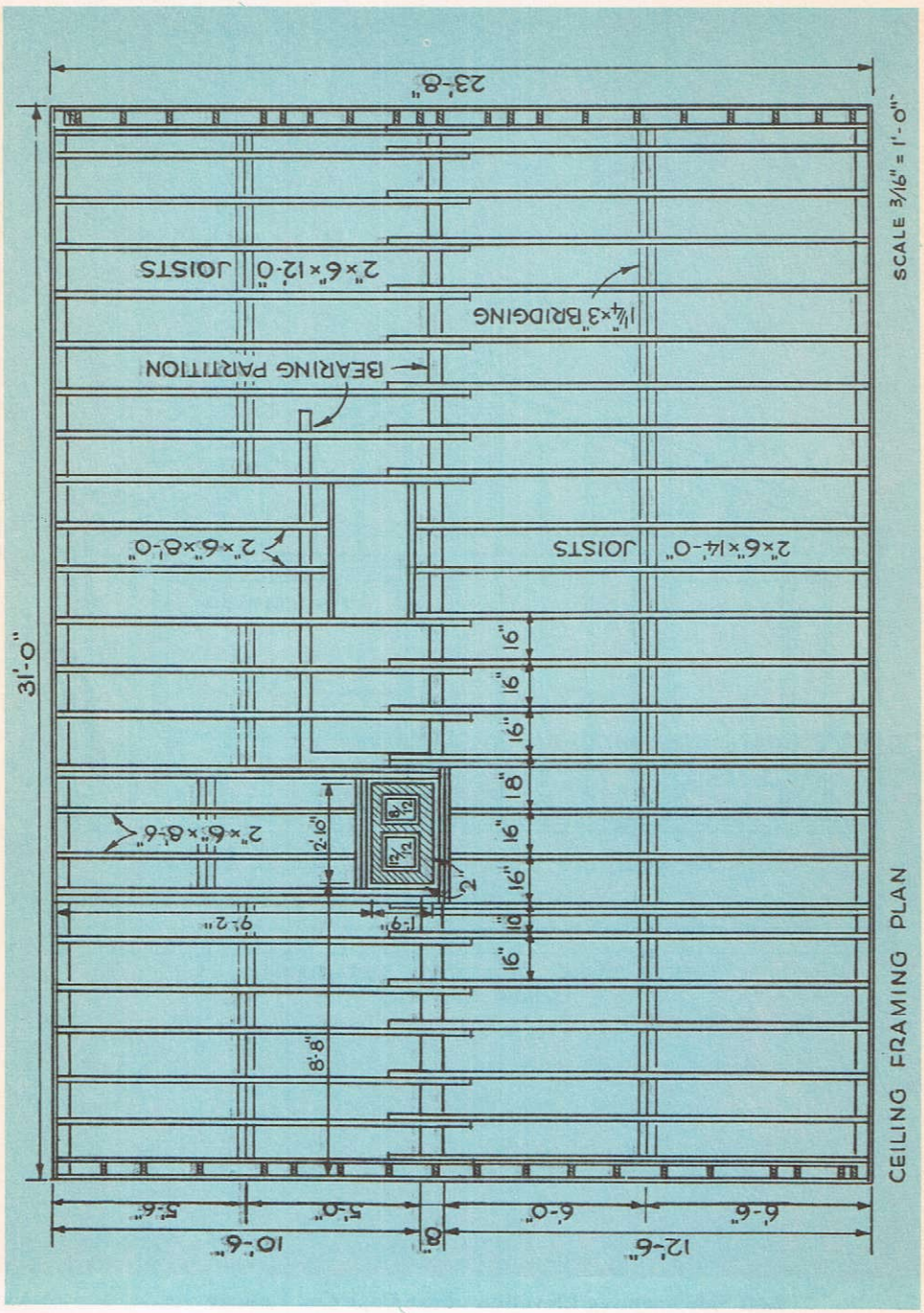
Right Side Framing Elevation of the Cape Cod Cottage



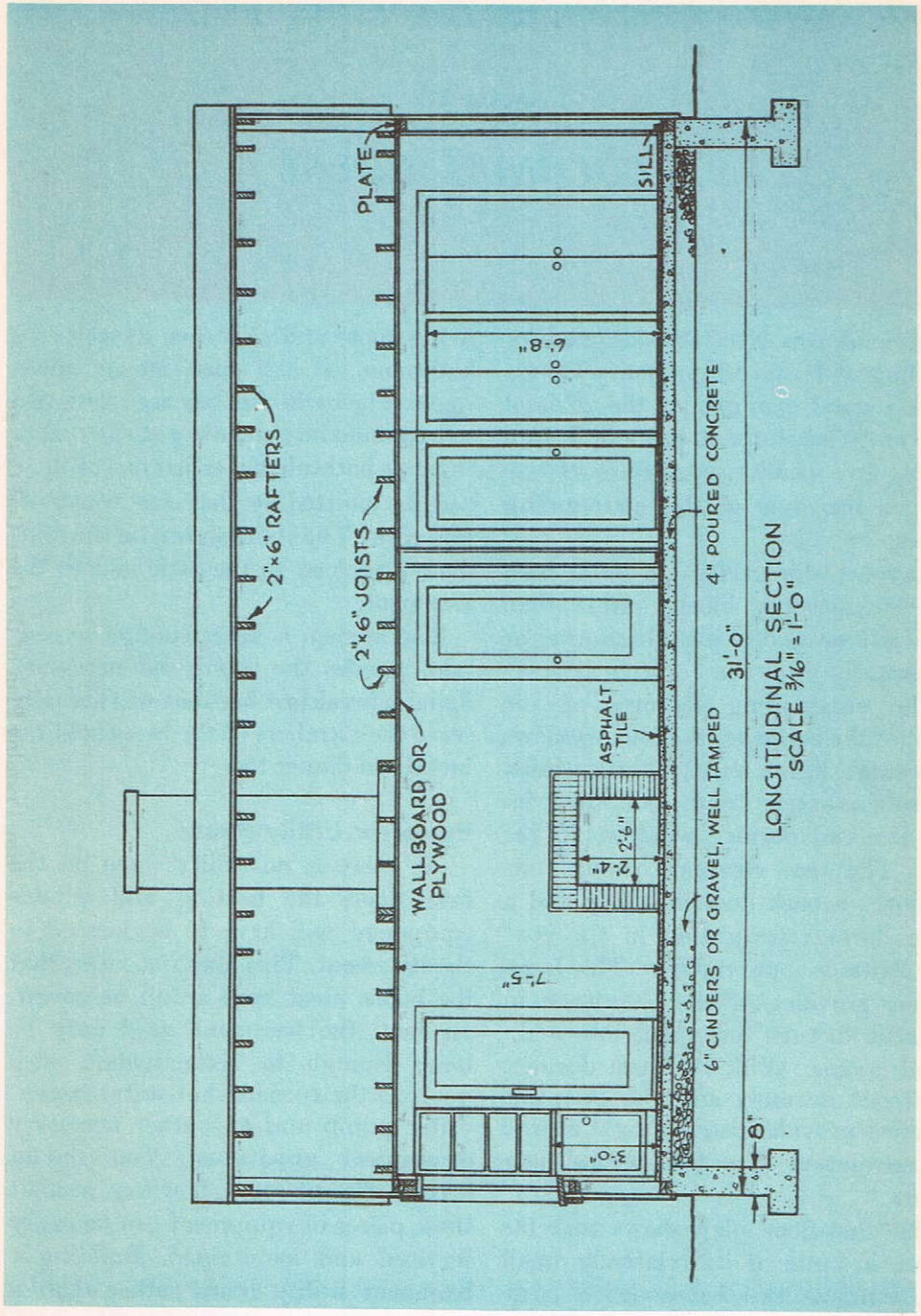
Rear Framing Elevation of the Cape Cod Cottage



Left Side Framing Elevation of the Cape Cod Cottage



Ceiling Framing Plan of the Cape Cod Cottage



Longitudinal Section of the Cape Cod Cottage